

ABSTRACT

A multi-wavelength cascaded Raman resonator ("MWCRR"). The MWCRR has an optical source for pumping optical radiation centered around an input wavelength. The MWCRR further includes a Raman fiber having at least a first set of optical gratings for converting the pumped optical radiation to wavelengths other than the input wavelength. The Raman fiber also has at least one adjustable output coupler having a variable reflectivity for controlling the power of the optical radiation propagating from the at least one set of optical gratings at the wavelengths other than the input wavelength.